March 22, 2004

Marlene H. Dortch
Secretary
Federal Communications Commission
TW-A325
445 Twelfth St., SW
Washington, DC 20554

Re: *Notice of Ex Parte Presentation in* WT Docket No. 03-66

Dear Ms. Dortch:

On March 18, 2004, Harold Feld, Associate Director, Media Access Project (MAP), Jim Snider, and Matt Barranca of the New America Foundation, Andy Demidont, former superintendent of the Rockwood Area School District of Pennsylvania, Vincent Capricci, Superintendent of Schools, Rockwood Area School District, and Tom DeReggi, President, Rapid DSL & Wireless, met with Commissioner Abernathy and her Advisor Jennifer Manner. Dustin Goodwin, President, New York City Wireless and Marlon Shafer, President, Odessa Office Equipment, participated by telephone.

Mr. Demidont described the creation of the Rockwood WAN. None of the incumbent broadband providers – cable, ILEC, or licensed wireless – expressed any interest in deploying to Rockwood. Rockwood is a rural, economically depressed county in the Pocono Mountains, about 70 miles east of Pittsburgh. In partnership with a local WISP named Sting Networks, Rockwood created a central hub at its school. From there, the school provides broadband connectivity to the local library, businesses, police, and fire department.

More importantly, and integral to Rockwood's education plan, the school provides broadband access to parents of students. This allows the parents to engage with the school and allows the students to work on projects at home as well as in school.

Mr. Capricci said that Rockwood has become a model for other local school districts. Eighteen school districts in the economically depressed rural areas of Pennsylvania are duplicating Rockwood's system. These districts are also networking with each other.

Mr. Capricci compared Internet access to rural electrification in the 1930s. He stressed that the school needs additional spectrum in order to increase capacity so that all parents can be included in the network.

As a direct consequence of the access unlicensed spectrum made possible, standardized test scores for Rockwood had risen from among the worst in the state to among the best. The effect on the students of providing access to the Internet put them on a level playing field to suburban kids. He also stated that, as an educator, he could see the impact of opening students to new ideas and new cultures via the internet. The children, in turn, educated the parents when they introduced access into the home. Without access to additional spectrum, however, the demands on the system will soon outstrip the capacity of the system.

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Mr. Goodwin described NYC Wireless, a non-commercial entity providing Internet access to urban poor in New York City. NYC Wireless works with other non-profit organizations to provide Internet access using 2.4 GHz hotspots and donated services of local ISPs. Mr. Goodwin described his work with a non-profit called Community Access, which provides free MDU housing to former residents of public institutions transitioning to mainstream society. NYC Wireless has provided Internet access for between 30-40 buildings using 2.4 Ghz spectrum. If NYC Wireless did not provide this service, this community would remain unserved.

Because of crowding in urban environments, the equipment used must be very frequency agile and have space to jump around to avoid congestion. Within buildings, use of 2.4 Ghz spectrum allows multiple apartments to be "lit" with a single piece of equipment. More spectrum proximate to 2.4 Ghz is needed to maintain lifeline service to underserved communities in NYC served by NYC Wireless.

Mr. Shaffer described the system maintained by Odessa Office Supplies. Odessa offers unlicensed service in rural areas outside Odessa, Washington. Because signals must travel extended distances, Odessa does not use 5.4 Ghz spectrum, but relies on a mix of 2.4 GHz and 5.8 GHz. The service makes broadband speeds available in places where it would not otherwise be available. The service also provides connectivity for local fire departments, libraries and other important community institutions at reduced rates or free.

Mr. DeReggi described the system deployed by Rapid DSL & Wireless. He explained that they had avoided use of 2.4 Ghz because it lacks sufficient channel space. Additional of even a single channel within .5 Ghz of existing 2.4 underlay would dramatically improve the ability to use 2.4 GHz because channel hopping is a ***geometric*** progression rather than an arithmetic progression. *i.e.* adding a new channel multiplies the number of possible combinations. Mr. DeReggi compared it to a bicycle lock that has four "slots" with numbers 0-9 on each slot. Adding another slot adds not just one combination, or even ten combinations, but a new order of magnitude of combinations (it increases the total number of combinations from 10^4 to 10^5).

Mr. DeReggi stressed that any additional spectrum must be proximate to existing unlicensed spectrum and operate under sufficiently similar rules so that it is cost effective to build a single unit capable of frequency hopping. Accordingly, it is better to have a single new channel added in 2.5 than 10 new channels added in 10 distant places on the spectrum chart. Mr. Dereggi added that 5.4 and 5.8 bands do not allow sufficient power to connect over significant distances for his needs.

Mr. Dereggi described the service his company offers to a low-income housing project in downtown Alexandria, where neither the incumbent cable company nor Verizon have deployed high-speed internet service. Mr. Dereggi stated that his company could offer broadband service to the neighborhood at $19.99/month.

Mr. Dereggi observed that unlicensed is critical to maintaining a competitive market. His company switched from DSL to unlicensed because Verizon continued raised the price of data circuits from less than $15/circuit to $75/circuit. Mr. Schaffer confirmed that in his area, DSL was not available, cable systems would not sell access to their customers, and no licensed provider expressed an interest in selling spectrum. Accordingly, unlicensed spectrum was the only solution available.

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Mr. Barranca distributed three policy papers by New America Foundation containing descriptions of numerous other school districts using unlicensed spectrum for educational purposes, and other entities using networks based on unlicensed spectrum. Copies of these papers are attached.

In accordance with Section 1.1206(b), 47 C.F.R. § 1.1206, this letter is being filed electronically with your office today.

Respectfully submitted

Harold Feld
Associate Director
Media Access Project

cc: Commissioner Abernathy
Jennifer Manner

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